

What Is Claimed Is:

1. A multivalue control system, having a controlled multivalue system (11), the controlled multivalue system having a plurality of correcting variables (14, 15) as input variables and a plurality of controlled variables (12, 13) as output variables. having a plurality of comparators (24, 25) for ascertaining control deviations (26, 27), having a plurality of controllers (28, 29), a control deviation (26, 27) being able to be supplied to each controller (28, 29) as an input variable, and having a conversion device (32), whose input variables are the output variables (30, 31) made available by the controllers (28, 29), the conversion device (32) calculating, at least from the output variables (30, 31) of the controllers (28, 29), the correcting variables (14, 15) for the controlled multivalue system (11).

wherein the conversion device (32) superimposes on the output variables (30, 31) of the controllers (28, 29) an input control component that is a function of the actual value, for calculating the correcting variables (14, 15).

2. The multivalue control system as recited in Claim 1, wherein the conversion device (32) offsets the output variables (30, 32) of the controllers (28, 29) against each other, for calculating the correcting variables (14, 15).

3. The multivalue control system as recited in Claim 2, wherein the offsetting of the output variables (30, 31) of the controllers (28, 29) is a function of the controlled multivalue system (11).

4. The multivalue control system as recited in one or more of Claims 1 through 3, characterized by a first controlled variable conversion device (19), the controlled variables (12, 13) being able to be supplied to the first controlled variable

conversion device (19) as input variables; and the first controlled variable conversion device (19) ascertaining the output variables (20, 21) from the controlled variables (12, 13), which are able to be supplied to the comparators (24, 25) as first input variables.

5. The multivalue control system as recited in one or more of Claims 1 through 4, characterized by a second controlled variable conversion device (18), setpoint values (16, 17) of the controlled variables (12, 13) being able to be supplied to the second controlled variable conversion device (18) as input variables; and the second controlled variable conversion device (18) ascertaining output variables (22, 23) from the setpoint values (16, 17), which are able to be supplied to the comparators (24, 25) as second input variables.

6. The multivalue control system as recited in Claim 4 or 5, wherein the comparators (24, 25) offset the first input variables of the same against the corresponding second input variables of the same; and the control deviations (26, 27) resulting therefrom are able to be supplied to the controllers (28, 29) as input variables.

7. A method for controlling a controlled multivalue system, a plurality of correcting variables (14, 15) being supplied to the controlled multivalue system (11) as input variables; a plurality of controlled variables (12, 13) being offset against one another as output variables of the controlled multivalue system (11) for the ascertainment of control deviations (26, 27); and each control deviation (26, 27) being supplied to a controller (28, 29) as an input variable; output values (30, 31) made available by the controllers (28, 29) being supplied to a conversion device (32) as input variables, and, in the conversion device (32), at least from the output variables (30, 31) of the controllers (28, 29), the correcting

variables (14, 15) for the controlled multivalue system (11) being calculated; wherein, in order to calculate the correcting variables (14, 15), the output variables (30, 31) of the controllers (28, 29) are offset against each other additionally using an input control component that is a function of the actual value.

8. The method as recited in Claim 8, wherein the output variables (30, 31) of the controllers (28, 29) are offset against each other for ascertaining the correcting variables (14, 15).

8. The method as recited in Claim 7 or 8, wherein the controlled variables (12, 13) of the controlled multivalue system (11) are supplied to a first controlled variable conversion device (19) as input variables, the first controlled variable conversion device (19) ascertaining output variables (20, 21) from the controlled variables (12, 13), which are able to be supplied to the comparators (24, 25) as first input variables.

10. The method as recited in one or more of Claims 7 through 9, wherein setpoint values (16, 17) of the controlled variables are supplied to a second controlled variable conversion device (18) as input variables, the second controlled variable conversion device (18) ascertaining output variables (22, 23) from the setpoint values (16, 17), which are supplied to the comparators (24, 25) as second input variables.

11. The method as recited in Claim 9 or 10, wherein the first input variables of the comparators (24, 25) and the corresponding second input variables of the same are offset against each other. and the control deviations (26, 27)

resulting therefrom are supplied to the controllers (28, 29) as input variables.

12. A method for controlling a propeller power unit, a propeller speed (12) and a propeller performance (13) being controlled as the controlled variables; a propeller blade angle of incidence (14) and a fuel stream (15) being supplied to the propeller power unit (11) as correcting variables; output values (30, 31) made available by the controllers (28, 29) being supplied to a conversion device (32) as input variables, for ascertaining the propeller blade angle of incidence (14) and the fuel stream (15), and the conversion device (32) ascertaining the propeller blade angle of incidence (14) and the fuel stream (15) as controlled variables from the output variables (30, 31) of the controllers (28, 29), wherein in the conversion device (32), the output variables (30, 31) of the controllers (28, 29) are offset against each other and are additionally offset using an input control component that is a function of the actual value.

13. The method as recited in Claim 12, wherein the propeller speed (12) and the propeller performance (13) as correcting variables of the propeller power unit (11) are supplied to a first controlled variable conversion device (19) as input variables, the first controlled variable conversion device (19) making available as output variables actual values for the propeller speed (20) and a turbine output (21).

14. The method as recited in Claim 12 or 13, wherein setpoint values for the propeller speed (16) and the propeller performance (17) are supplied to a second controlled variable conversion device (18) as input variables, the second controlled variable conversion device (18) making available as

output variables setpoint values for the propeller speed (22) and a turbine output (23).

15. The method as recited in Claim 13 or 14, wherein corresponding control deviations (26, 27) are ascertained from the actual values and the corresponding setpoint values for the propeller speed and the turbine output, the propeller speed control deviation (26) being supplied to a speed controller (28) and the turbine output control deviation (27) being supplied to an output controller (29).

16. The method as recited in Claim 15, wherein the speed controller (28) makes available a torque request (30) as output variable, and the power controller (29) makes available a turbine output request (31) as output variable, the propeller blade angle of incidence (14) and the fuel stream (15) being ascertained in the conversion device (32) from the torque request (30) and the turbine output request (31).